

AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior versions, and listings, of the claims in this application.

Listing of Claims:

1. (Currently Amended) A method of ~~allocating communication slots in a communication system comprising a plurality of base stations each for communicating with at least one mobile station, the base stations capable of communicating via any of a predetermined group of slots, and some of the base stations being susceptible of being interfered with by other of the base stations in some of the slots of said group of slots, the method comprising the steps of:~~

~~predetermining~~ determining, for each base station of a plurality of base stations capable of communicating with at least one mobile station via any of a group of slots in a communication system, a classification for each slot of the group of slots according to ~~the~~ a probability of interference ~~at the slot~~ with other base stations of the plurality of base stations ~~upon a request of at least one mobile station to initiate communication via a base station~~, comprising assigning as owned by one of said ~~each~~ base stations and as avoided by other of said ~~other~~ base stations a first slot in which said other base stations interfere with said ~~each~~ one base station,

assigning as owned by individual ones of said other base stations and as avoided by said ~~each~~ one base station ~~remaining~~ other slots in which said individual ones of said other base stations interfere with said ~~each~~ one base station, and

assigning as shared by said ~~each~~ one base station and another of said other base stations a shared slots slot in which said another of said other base stations interferes with said ~~each~~ one base station if used simultaneously with said ~~each~~ one base station and which are not assigned as owned by ~~either~~ any of the base stations; and

allocating on request a slot according to the ~~predetermined~~ determined classification and a

desired quality class of transmission.

2. (Previously Presented) The method of claim 1, wherein each said slot is a time slot.

3. (Canceled)

4. (Original) The method of claim 1, wherein:

the communication system further includes a controller connected to each base station;
said predetermination for each base station is reported to the controller; and
said allocating is performed in the controller.

5. (Currently Amended) The method of claim 1, ~~wherein~~ further comprising:

reporting the determined classification to a controller in the communication system,
~~further includes a controller connected to each base station; said predetermination for each base station is reported to the controller; said allocating is performed in the controller; and~~
wherein, the controller allocates the slots and maintains an indication of which slots are currently allocated for each base station.

6. (Previously Presented) The method of claim 5, wherein:

if neither an owned slot nor a shared slot of a first base station is available for a requested communication, the controller determines whether any avoided slot of the first base station is not in use by a second base station owning that slot, and if so, that slot is allocated for the requested communication.

7. (Original) The method of claim 2 wherein the step of allocating is further according to location of a mobile station to be communicated with.

8. (Currently Amended) ~~Apparatus for allocating communication slots in a communication system comprising a plurality of base stations each for communicating with at least one~~

~~mobile station, the base stations capable of communicating via any of a predetermined group of slots, and some of the base stations being susceptible of being interfered with by other of the base stations in some of the slots of said group of slots, the apparatus comprising a logic unit configured to:~~

~~predetermine~~ determine, for each base station of a plurality of base stations capable of communicating with at least one mobile station via any of a group of slots in a communication system, a classification for each slot of the group of slots according to ~~the~~ a probability of interference ~~at the slot~~ with other base stations of the plurality of bases stations ~~upon a request of at least one mobile station to initiate communication via a base station, comprising assigning and to assign~~ as owned by one of said ~~each~~ base stations and as avoided by other of said ~~other~~ base stations a first slot in which said other base stations interfere with said ~~each~~ one base station,

~~assigning to assign~~ as owned by individual ones of said other base stations and as avoided by said ~~each~~ one base station ~~remaining other~~ slots in which said individual ones of said other base stations interfere with said ~~each~~ one base station, and

~~assigning to assign~~ as shared by said ~~each~~ one base station and another of said other base stations a shared slot slots in which said another of said other base stations interfere with said ~~each~~ one base station if used simultaneously with said ~~each~~ one base station and which are not assigned as owned by ~~either~~ any of the base stations; and

allocate on request a slot according to the ~~predetermined~~ determined classification and a desired quality class of transmission.

9. (Previously Presented) The apparatus of claim 8, wherein each said slot is a time slot.

10. (Canceled)

11. (Currently Amended) The apparatus of claim 8, further comprising a controller connected to

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each base station and configured to:

receive a report as a result of said predetermination determination for each base station is ~~reported to the controller;~~ and allocate the slot on request ~~to be a portion of said logic unit for performing said allocating.~~

12. (Currently Amended) The apparatus of claim 11, wherein the controller ~~maintains~~ is further configured to maintain an indication of which slots are ~~currently~~ allocated for each base station.

13. (Previously Presented) The apparatus of claim 12, wherein:

if neither an owned slot nor a shared slot of a first base station is available for a requested communication, the controller is configured to determine whether any avoided slot of the first base station is not in use by a second base station owning that slot, and if so, to allocate that slot for the requested communication.

14. (Previously Presented) The apparatus of claim 9, wherein the logic unit is configured to allocate a slot further according to location of a mobile station to be communicated with.

15. (Currently Amended) ~~Apparatus for allocating communication slots in a communication system comprising a plurality of base stations each for communicating with at least one mobile station, the base stations capable of communicating via any of a predetermined group of slots, and some of the base stations being susceptible of being interfered with by other of the base stations in some of the slots of said group of slots, the apparatus comprising a logic means configured to:~~

predetermine means for determining, for each base station of a plurality of base stations capable of communicating with at least one mobile station via any of a group of slots in a communication system, a classification for each slot of the group of slots according to the a probability of interference at the slot with other base stations of the plurality of bases stations, said determining

~~means comprising upon a request of at least one mobile station to initiate communication via a base station, comprising predetermine~~ means for

assigning as owned by one of said each base stations and as avoided by other of said ~~other~~ base stations a first slot in which said other base stations interfere with said ~~each~~ one base station,

assigning as owned by individual ones of said other base stations and as avoided by said ~~each~~ one base station ~~remaining other~~ slots in which said individual ones of said other base stations interfere with said ~~each~~ one base station, and

assigning as shared by said ~~each~~ one base station and another of said other base stations a shared slot ~~slots~~ in which said another of said other base stations interferes with said ~~each~~ one base station if used simultaneously with said ~~each~~ one base station and which are not assigned as owned by ~~either~~ any of the base stations; and

means for allocate allocating on request a slot according to the ~~predetermined~~ classification and a desired quality class of transmission.

16. (New) The apparatus of claim 15, where said determining means and said allocating means comprise part of a controller that is connected to said base stations.

17. (New) The method of claim 1, where the desired quality class of transmission comprises a desired quality of service class.

18. (New) The method of claim 1, where the desired quality class of transmission is considered for real-time transmission to be a high quality class, and for packet data transmission to be a lower quality class.

19. (New) The apparatus of claim 8, where the desired quality class of transmission

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comprises a desired quality of service class.

20. (New) The apparatus of claim 8, where the desired quality class of transmission is considered for real-time transmission to be a high quality class, and for packet data transmission to be a lower quality class.

21. (New) The apparatus of claim 15, where the desired quality class of transmission comprises a desired quality of service class.

22. (New) The apparatus of claim 15, where the desired quality class of transmission is considered for real-time transmission to be a high quality class, and for packet data transmission to be a lower quality class.